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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Paper No. 13

Application Number: 09/404,570
Filing Date: 9/23/99
Appellant(s): Shadi L. Malhotra

Judith L. Byorick
For Appellant

EXAMINER'S ANSWER

This is in response to appellant's brief on appeal filed 8/3/01.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

The brief includes a statement that claims 1-21 and 23-24 do not stand or fall together, but fails to present reasons in support thereof as required under 37 CFR 1.192(c)(5). MPEP § 1206.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

5,931,995	Malhotra et al.	8-1999
4,105,806	Watt	8-1978
5,122,187	Schwarz et al.	6-1992
5,939,468	Siddiqui	8-1999
5,279,655	Takazawa et al.	1-1994
6,022,910	Nishizaki et al.	2-2000
5,378,403	Shacklette	1-1995
5,286,288	Tobias et al.	2-1994

WO 93/22775 Han 11-1993

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1-5, 8-13, and 17-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. (U.S. 5,931,995) in view of either Schwarz et al. (U.S. 5,122,187) or Siddiqui (U.S. 5,939,468), Watt (U.S. 4,105,806), and Takazawa et al. (U.S. 5,279,655).

Malhotra et al. discloses a hot melt ink possessing melting temperature of 125^0-160^0 C, melt viscosity of 5-20 cP, and acoustic-loss value of less than 100 dB/mm. The ink contains colorant such as a dye or pigment, 0.5-10% antioxidant, and UV absorber. There is also disclosed an acoustic ink jet printing process (col.2, lines 11-13, col.3, lines 9-15 and 31-32, col.4, line 14, col.6, lines 8-9, col.9, lines 60-62, and col.11, line 59-col.12, line 34).

There is also disclosed the use of 1-55% compounds such as benzaldehyde, 3-methoxy benzaldehyde, 4-methoxy benzaldehyde, 3-methyl benzaldehyde, 2-hydroxy benzaldehyde, cinnamaldehyde, and 5-97% compounds such as 2,3,4-trimethoxybenzaldehyde, 3,5-dimethoxy benzaldehyde, 2,5-dimethoxy benzaldehyde, and 3-benzyloxy benzaldehyde (col.6, lines 1-6, col.7, lines 1, 5-6, 8, 17, and 19 and col.8, lines 11-14 and 17).

It is noted that Malhotra et al. discloses 2,3,4-trimethoxybenzaldehyde, 2-hydroxy benzaldehyde, and 3-benzyloxy benzaldehyde, while the present claims require either 2,3,5-trimethoxybenzaldehyde, 2,3,6-trimethoxybenzaldehyde, 2,4,5-trimethoxybenzaldehyde, 2,4,6-trimethoxybenzaldehyde, 3-hydroxy benzaldehyde, 4-hydroxy benzaldehyde, or 4-benzyloxy benzaldehyde. In each case, the only difference between the reference compounds and those presently claimed are the position of the substituents, i.e. ortho, meta, or para. However, absent any evidence of criticality, one of ordinary skill in the art would expect the benzaldehyde to function in the same manner regardless of the position of the substituents. Further Malhotra et al. broadly disclose the use of benzaldehydes or, for instance, 3-methoxy benzaldehyde, while the present claims require more specific types of benzaldehydes such as 4-hydroxy-3-methoxy benzaldehyde. However, one of ordinary skill in the art would have recognized that the broad disclosure of benzaldehyde or 3-methoxy benzaldehyde encompasses the use of specific types of these compounds such as those presently claimed, and that the choice of these specific types of compounds would have been within the bounds of routine experimentation.

The difference between Malhotra et al. and the present claimed invention is the requirement in the claims of (a) viscosity modifier, (b) aldehyde copolymer, and (c) time necessary for ink to change from solid to liquid.

With respect to difference (a), Malhotra et al. discloses benzaldehyde compounds as presently claimed, but does not explicitly refer to these compounds as viscosity modifiers. However, given that the reference compounds are the same type as the compounds presently

claimed, i.e. benzaldehydes, it would have been natural for one of ordinary skill in the art to infer that the reference compounds intrinsically function as viscosity modifiers, and thereby arrive at the claimed invention.

With respect to difference (b), Schwarz et al., which is drawn to hot melt inks, disclose the use of 10-90% aldehyde copolymer, namely, formaldehyde-toluenesulfonamide, which functions both as a binder to provide printed images with flexibility to prevent cracking and creasing and a propellant to enhance ejection of the ink from the ink jet printer (col.2, lines 18-26, col.6, lines 45-47, col.14, lines 45 and 53, and col.16, lines 17-19).

Alternatively, Siddiqui, which is drawn to ink jet inks, discloses the use of 12-35% toluenesulfonamide-formaldehyde resin in order to improve the adhesion of the ink to the substrate (col.7, lines 66-col.8, line 2, col.8, lines 57-62, and col.9, lines 53-60).

Watt, which is drawn to ink compositions, discloses the use of polyglycidyl ethers of formaldehyde as a binder (col.3, lines 52-54 and col.4, lines 10-12).

It is noted that both Siddiqui and Watt are drawn to liquid inks, while Malhotra et al. is drawn to hot melt ink. However, given that the ingredients for liquid inks and solid inks overlap as disclosed in Takazawa et al. (col.6, lines 43-52 and col.7, lines 65-68), it therefore would have been obvious to one of ordinary skill in the art that copolymers which function effectively in liquid inks would also function effectively in hot melt inks.

In light of the motivation for using aldehyde copolymers disclosed by either Schwarz et al. or Siddiqui and Watt as described above, it therefore would have been obvious to one of

ordinary skill in the art to use these copolymers in the ink composition of Malhotra et al. in order to produce an ink with good flexibility and enhanced ejection from the ink jet printer or alternatively, improved adhesion to the substrate, and thereby arrive at the claimed invention.

With respect to difference (c), although there is no explicit disclosure of the time required to change the ink from a solid state to a liquid state, given that the melting temperature of Malhotra et al.'s ink overlaps the melting temperature presently claimed, it is natural to infer that Malhotra et al.'s ink will intrinsically change from solid to liquid in the same amount of time as presently claimed.

2. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. as applied to claims 1-5, 8-13, and 17-21 above, and further in view of Tobias et al. (U.S. 5,286,288).

The difference between over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. and the present claimed invention is the requirement in the claims of conductivity and the amount of conductivity enhancing agent.

Tobias et al., which is drawn to hot melt inks, discloses the use of 0.1-5% conductivity agents in order to control the conductivity of the ink from 500-1500 microsiemens/cm or approximately 8.7-9.2 log(picomho/cm) which ensures that the ink has sufficient conductivity in order to be successfully ink jet printed (col.3, line 19, lines 29-30 and 35-37).

In light of the above, it therefore would have been obvious to one of ordinary skill in the art to control the conductivity of the hot melt of Malhotra et al. via conductivity agents in order to produce an suitable for ink jet printing, and thereby arrive at the claimed invention.

3. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. as applied to claims 1-5, 8-13, and 17-21 above, and further in view of Nishizaki et al. (U.S. 6,022,910).

The difference between over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. and the present claimed invention is the requirement in the claims of the haze value of the ink.

On the one hand, given that Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. disclose an ink with similar ingredients to those presently claimed, i.e. aldehyde copolymer, nonpolymeric aldehyde, colorant, antioxidant, and UV absorber, it is natural to infer that the ink intrinsically possesses haze value as presently claimed.

On the other hand, Nishizaki et al., which is drawn to hot melt inks, discloses that hot melt inks having haze value of 0-30 exhibit superior light transmission properties especially when printed on OHP sheets (col.3, lines 20-25).

In light of the disclosure of Nishizaki et al., it therefore would have been within the skill level of one of ordinary skill in the art to vary the specific types and amounts of ingredients present in the ink of Malhotra et al. in order to produce an ink having haze value of 0-30 in order

to produce an ink with superior light transmission properties, and thereby arrive at the claimed invention.

4. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. as applied to claims 1-5, 8-13, and 17-21 above, and further in view of Shacklette (U.S. 5,378,403) and WO 93/22775.

The difference between over Malhotra et al. in view of either Schwarz et al. or Siddiqui, Watt, and Takazawa et al. and the present claimed invention is the requirement in the claims of specific type of conductivity enhancing agent.

Shacklette discloses the use of polyaniline complexes with phosphonic or phosphinic acid in order to impart conductivity and enhanced thermal stability to polymers including formaldehyde-sulfonamide (col.3, lines 45 and 66-68, col.9, lines 39-41, col.10, lines 1 and 3, col.12, lines 30-38, col.13, line 9, and col.18, lines 40-42). Although there is no explicit disclosure that the complex is suitable for use in inks, it is well known in the art as found in state-of-the-art references such as WO 93/22775 (page 17, lines 25-26) that these polyaniline-phosphorous-containing acid complexes are indeed suitable for use in inks.

In light of the motivation for using specific type of conductivity enhancing agent disclosed by Shacklette and WO 93/22775 as described above, it therefore would have been obvious to one of ordinary skill in the art to use this conductivity enhancing agent in the ink of

Malhotra et al. in order to control the conductivity of the ink so that the ink is successfully ink jet printed, and thereby arrive at the claimed invention.

6. Claims 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Malhotra et al. (U.S. 5,931,995) in view of Watt (U.S. 4,105,806).

Malhotra et al. discloses a hot melt ink possessing melting temperature of 125^0-160^0 C, melt viscosity of 5-20 cP, and acoustic-loss value of less than 100 dB/mm. The ink contains colorant such as a dye or pigment, 0.5-10% antioxidant, and UV absorber. There is also disclosed an acoustic ink jet printing process (col.2, lines 11-13, col.3, lines 9-15 and 31-32, col.4, line 14, col.6, lines 8-9, col.9, lines 60-62, and col.11, line 59-col.12, line 34).

There is also disclosed the use of 1-55% compounds such as benzaldehyde, 3-methoxy benzaldehyde, 4-methoxy benzaldehyde, 3-methyl benzaldehyde, 2-hydroxy benzaldehyde, cinnamaldehyde, and 5-97% compounds such as 2,3,4-trimethoxybenzaldehyde, 3,5-dimethoxy benzaldehyde, 2,5-dimethoxy benzaldehyde, and 3-benzyloxy benzaldehyde (col.6, lines 1-6, col.7, lines 1, 5-6, 8, 17, and 19 and col.8, lines 11-14 and 17).

It is noted that Malhotra et al. discloses 2,3,4-trimethoxybenzaldehyde, 2-hydroxy benzaldehyde, and 3-benzyloxy benzaldehyde, while the present claims require either 2,3,5-trimethoxybenzaldehyde, 2,3,6-trimethoxybenzaldehyde, 2,4,5-trimethoxybenzaldehyde, 2,4,6-trimethoxybenzaldehyde, 3-hydroxy benzaldehyde, 4-hydroxy benzaldehyde, or 4-benzyloxy benzaldehyde. In each case, the only difference between the reference compounds and those

presently claimed are the position of the substituents, i.e. ortho, meta, or para. However, absent any evidence of criticality, one of ordinary skill in the art would expect the benzaldehyde to function in the same manner regardless of the position of the substituents. Further Malhotra et al. broadly disclose the use of benzaldehydes or, for instance, 3-methoxy benzaldehyde, while the present claims require more specific types of benzaldehydes such as 4-hydroxy-3-methoxy benzaldehyde. However, one of ordinary skill in the art would have recognized that the broad disclosure of benzaldehyde or 3-methoxy benzaldehyde encompasses the use of specific types of these compounds such as those presently claimed, and that the choice of these specific types of compounds would have been within the bounds of routine experimentation.

The difference between Malhotra et al. and the present claimed invention is the requirement in the claims of (a) viscosity modifier and (b) aldehyde copolymer.

With respect to difference (a), Malhotra et al. discloses benzaldehyde compounds as presently claimed, but does not explicitly refer to these compounds as viscosity modifiers. However, given that the reference compounds are the same type as the compounds presently claimed, i.e. benzaldehydes, it would have been natural for one of ordinary skill in the art to infer that the reference compounds intrinsically function as viscosity modifiers, and thereby arrive at the claimed invention.

With respect to difference (b), Watt, which is drawn to ink compositions, discloses the use of polyglycidyl ethers of formaldehyde as a binder (col.3, lines 52-54 and col.4, lines 10-12).

In light of the motivation for using aldehyde copolymers disclosed by Watt as described above, it therefore would have been obvious to one of ordinary skill in the art to use these copolymers in the ink composition of Malhotra et al. in order to produce an ink with good flexibility and enhanced ejection from the ink jet printer or alternatively, improved adhesion to the substrate, and thereby arrive at the claimed invention.

(11) Response to Argument

1. Present claim 1 requires a hot melt ink composition comprising (a) an aldehyde ink vehicle, (a) a nonpolymeric aldehyde viscosity modifier, (c) a colorant, and (d)-(f) various optional additives including conductivity enhancing agent, antioxidant, and UV absorber. Claim 21 is identical to claim 1 with the exception that the claim recites "consisting essentially of" transitional language.

Malhotra et al. disclose a hot melt ink comprising solid aldehyde compound, colorant, antioxidant, and UV absorber. However, there is no disclosure of aldehyde copolymer ink vehicle as presently claimed. On the one hand, Examiner combined Malhotra et al. with Schwarz et al., which is drawn to hot melt ink, in order to teach the use of aldehyde copolymer. On the other hand, Examiner combined Malhotra et al. with Siddiqui and Watt, which are each drawn to liquid ink, in order to teach the use of aldehyde copolymer. Examiner

further utilized Takazawa et al. as evidence to support the combination of hot melt ink disclosed by Malhotra et al. with liquid inks of Siddiqui and Watt.

Appellant argues that although Malhotra et al. disclose solid nonpolymeric aldehyde compounds including benzaldehyde compounds as presently claimed, i.e. corresponding to the claimed nonpolymeric aldehyde viscosity modifier, there is nothing in Malhotra et al. that teaches or suggests that these compounds would function as viscosity modifiers.

However, it is noted that regardless what the solid nonpolymeric aldehyde is called by Malhotra et al., the fact remains that the hot melt ink of Malhotra et al. does contain nonpolymeric aldehyde compounds as presently claimed, ie. benzaldehydes, and thus meets the claimed limitation of nonpolymeric aldehyde viscosity modifier. Further, given that these solid nonpolymeric aldehyde compounds disclosed by Malhotra et al. are the same types as the compounds presently claimed, i.e. benzaldehydes, it would have been natural for one of ordinary skill in the art to infer that these solid nonpolymeric aldehyde compounds disclosed by Malhotra et al. intrinsically function as viscosity modifiers.

Appellant also argues that there is no motivation to combine Siddiqui or Watt with Malhotra et al. given that both Siddiqui and Watt are drawn to liquid inks while the present claims are drawn to hot melt ink.

While it is agreed that Siddiqui and Watt are each drawn to a liquid ink not a hot melt ink as presently claimed, it is noted that Siddiqui and Watt are used as teaching references, and

therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, In re Nievelt, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), In re Keller 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these reference teach a certain concept, namely, aldehyde copolymers, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

Further, Appellant has provided no clear and convincing evidence that components present in liquid inks cannot be added to hot melt inks.

Additionally, evidence to support Examiner's position of the combination of Malhotra et al., drawn to hot melt ink, with Siddiqui and Watt, each drawn to liquid ink, is found in Takazawa et al. which discloses the overlap between liquid ink and solid inks. (Note: As background information, it is noted that to one skilled in the art the terms "solid ink" and "hot melt ink" are equivalent). Appellant argues that Takazawa et al. is drawn to either liquid ink or solid ink and that there is no overlap between the two different inks. However, col.7, lines 65-68 of Takazawa et al. disclose that "conventional vehicles and others can be used without particular change.." which Examiner contends refers to the liquid inks previously mentioned by Takazawa et al. in col.6, lines 43-51. Appellant argues that the cited recitation in col. 7 refers to other conventional solid inks. However, it is noted that col.8, lines 1-6, 29-31 and col.9, line 48 of Takazawa et al. disclose that solid inks contain vehicle, colorant, dispersing

agent, and phthalates which are also disclosed by Takazawa et al. as ingredients used in liquid ink. Thus, from Takazawa et al. it is concluded that there is some overlap with respect to the ingredients used in liquid ink and solid ink.

Appellant further argues that the burden of establishing a case of obviousness rests with the Examiner and that the Examiner may not make an assertion, unsupported by facts, of unpatentability, and require Appellant to provide evidence to rebut this assertion.

However, it is the examiner's position that a case of obviousness has been established in light of the disclosures of Malhotra et al., Siddiqui, and Watt and that Examiner's assertion that liquid ink reference is combinable with solid ink reference is not unsupported. Rather, Takazawa et al. provides evidence to support Examiner's assertion. Finally, given that the Examiner has properly met the burden of establishing a prima facie case of obviousness, "the burden of coming forward with evidence or arguments shifts to the applicant who may submit additional evidence of non-obviousness, such as comparative data showing that the claimed invention possesses improved properties not expected by the prior art." See MPEP 2142.

Appellant argues that nothing in Schwarz et al. teaches or suggests that an aldehyde copolymer should be combined with a nonpolymeric aldehyde viscosity modifier and colorant to make hot melt ink and that nothing in Malhotra et al. teaches combining the disclosed aldehyde compounds with aldehyde copolymer.

However, while it is agreed that there is no disclosure in Malhotra et al. of an aldehyde copolymer and no disclosure in Schwarz et al. of an nonpolymeric aldehyde viscosity modifier, that it why these references are used in combination. The ink of Malhotra et al. is open to the inclusion of other ingredients and nothing in Malhotra et al. negates against using ingredients such as an aldehyde copolymer. Further, as discussed above, Schwarz et al. is used as a teaching reference in order to teach a specific concept, namely that aldehyde copolymers are conventionally known to be used in hot melt inks to provide printed images with flexibility to prevent cracking and creasing, and in combination with Malhotra et al. discloses the present invention. Thus, absent evidence to the contrary, it would have been obvious to one of ordinary skill in the art to use aldehyde copolymer of Schwarz et al. in the ink of Malhotra et al., and thereby arrive at the claimed invention.

2. With respect to present claim 4 which requires that the ink undergoes, upon heating, a change from solid state to liquid state in a period of no more than about 100 milliseconds, Appellant argues that although Malhotra et al. in view of Schwarz et al. or Siddiqui, Watt, and Takazawa et al. disclose a hot melt ink that possesses the same melting point as presently claimed, melting point and melting time are entirely different and that two materials with the same melting point can have substantially different melt times.

However, it is the Examiner's position that while melting point and melt time are different in that the former is measured in degrees and the latter is measured in time, given

that, upon heating, the time required for the ink to change from a solid to a liquid would necessarily depend on both the melting point of the ink as well as the ink itself, and given that Malhotra et al. in view of Schwarz et al. or Malhotra et al. in view of Siddiqui, Watt, and Takazawa et al. disclose an ink possessing not only the same melting point but also containing the same ingredients as presently claimed, the ink must intrinsically possess the same melt time as presently claimed.

Appellant further argues that the functional language of claim 4 must not be ignored, In re Caldwell, 319 F.2d 254, 138 USPQ 243 (CCPA 1963), In re Swinehart, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

However, Examiner never stated that functional language is improper or should be ignored. Rather, Examiner's position is that given that the references in combination disclose ink as presently claimed, the ink would intrinsically possess the same melt time as presently claimed.

3. With respect to claim 10 which requires specific types of nonpolymeric aldehyde viscosity modifiers, Appellant argues that all the aldehydes disclosed in claim 10 are solids while Malhotra et al. disclose both solid and liquid aldehydes.

However, it is noted that given the open language of claim 10, i.e. "comprising", the claim is clearly open to the inclusion of other ingredients including liquid aldehydes.

With respect to claim 21, which recites "consisting essentially of" claim language, although it is recognized that "consisting essentially of" narrows the scope of the claim as does the limitation that the nonpolymeric viscosity modifiers are those "having a melting point of no less than about 65^0 C", nevertheless, the burden is on the applicant to show that the additional ingredients in the prior art, i.e. nonpolymeric liquid aldehydes, would in fact be excluded from the claims. Absent such a showing, "consisting essentially of" will be construed as equivalent to "comprising of". See MPEP 2111.03.

4. With respect to claims 6 and 16 which require that the ink possess certain conductivity and certain amount of conductivity enhancing agents, Appellant argues that there is no motivation to combine Malhotra et al. with Tobias et al. given that Tobias et al. teaches hot melt inks for use in continuous ink jet printing where conductivity is important while there is no disclosure in Malhotra et al. that conductivity is important.

However, Tobias et al. is drawn to hot melt inks as is Malhotra et al. Given that Tobias et al. teaches that conductivity agents are used in hot melt inks to control the conductivity of the ink to a certain level in order to produce an ink which is suitable for ink jet printing and given that Malhotra et al. disclose that the hot melt ink is in fact printed using an ink jet printer, it is the Examiner's position that there is proper motivation to combine Malhotra et al. with Tobias et al.

7. With respect to claim 7 which requires that the ink possess certain haze value, Appellant argues that it is improper to combine Malhotra et al. with Nishizaki et al. in order to teach the claimed haze value given that Nishizaki et al. teach a different composition than presently claimed.

However, it is the Examiner's position that to the extent that Nishizaki et al. teach that hot melt inks with synthetic resin and additives possess haze value of 0-30 and that such inks exhibit superior light transmission properties, Nishizaki et al. remains a relevant reference against the present claims.

Appellant further argues that functional language as set forth in this claim cannot be ignored. However, Examiner has not ignored the functional language. Rather, Examiner has used Nishizaki et al., which teaches haze value necessary for superior light transmission properties when using hot melt inks and which would teach or suggest to one of ordinary skill in the art to select the ink ingredients in Malhotra et al. so as to control the haze value to 0-30 in order to prevent faulty ejection and clogging of ink jet printer heads.

8. With respect to claims 14 and 15 which require that the ink contain specific conductivity enhancing agent, Appellant argues that there is nothing in Shacklette or WO 93/22775 that teaches or suggests that complexes of a dianiline and a phosphorous-containing acid would be suitable for use in hot melt ink as presently claimed.

However, while it is agreed that Shacklette discloses the conductivity enhancing agent as presently claimed but does not disclose that such conductivity enhancing agents are suitable for use in inks, this is why Shacklette is used in combination with WO 93/22775 which teaches that conductivity enhancing agents of the type disclosed by Shacklette are in fact suitable for use in inks.

Although there is no disclosure in either Shacklette or WO 93/22775 of hot melt ink comprising aldehyde copolymer ink vehicle, nonpolymeric aldehyde viscosity modifier, and colorant as presently claimed, it is noted that Shacklette and WO 93/22775 are used as teaching references, and therefore, it is not necessary for these secondary references to contain all the features of the presently claimed invention, In re Nievelt, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), In re Keller 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather these reference teach a certain concept, namely, the use of specific type of conductivity enhancing agent in inks, and in combination with the primary reference, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

9. With respect to claims 23-24 which are identical to claim 1 with the exception that the claims require specific types of aldehyde copolymer and specific types of nonpolymeric aldehyde viscosity modifiers, it is noted that these claims were rejected by the Examiner

utilizing Malhotra et al. in view of Watt. Appellant has set forth the same arguments with respect to Malhotra et al. and Watt and Examiner's response is the same to these arguments as found in paragraph 1 above.

10. Appellant also argues that Examiner's rejections are based on hindsight. Citing case law such as In re Geiger, 2 USPQ2d 1276 (Fed. Cir. 1987), appellant further argues that obviousness cannot be established by combining references to arrive at the claimed invention absent some teaching, suggestion, or incentive supporting the combination and citing Uniroyal Inc. v. Rudkin Wiley Corp., _F.2d_, 5 USPQ2d 1435 (Fed. Cir. 1988), appellant argues that when prior art references require selective combination to render obvious a subsequent invention, there must be some reason for the combination other than hindsight gleaned from the invention itself.

However, it is the Examiner's position that there is some teaching, suggestion, or incentive to combine the references and that the combinations of references are not based on hindsight gleaned from the present invention, given that the examiner has provided motivations to combine the references, all the references are from the same general field of endeavor, i.e. inks, or in some cases the same field of endeavor, i.e. hot melt inks, and that the references when combined meet the claimed invention.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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October 18, 2001

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